REMARKS

Claims 1-23 are pending in the above-identified application. Claims 1-23 stand rejected under 35 U.S.C. § 103(a). Claims 1-16 and 20-21 stand rejected under 35 U.S.C. § 101. Claims 1-16, 18-19, and 20-21 stand rejected under 35 U.S.C. § 112. Claims 1 and 18 are amended to correct the deficiencies identified in the §§ 101 and 112 rejections. Claim 17 is amended to correct a typographical error. Claim 19 is amended to correspond to amended claim 18. Furthermore, claims 1, 17, and 18 are amended for clarity in light of the Examiner Interview. Based on the following remarks, we respectfully request allowance of the application.

CLAIM REJECTIONS – 35 U.S.C. § 101

The Examiner rejected claims 1-16 and 20-21 under 35 U.S.C. § 101 because claim 1 was "neither positively tied to a particular machine that accomplishes the claimed method steps nor transform underlying subject matter." Although we disagree with this rejection because the claim recites at least one source such that the method is tied to a structure, to advance prosecution we amend claim 1 to positively tie the method to a particular machine. Accordingly, we respectfully request that this rejection be withdrawn with respect to claim 1 and each of the claims depending therefrom.

CLAIM REJECTIONS – 35 U.S.C. § 112

The Examiner rejected claims 1-16, 18-19, and 20-21 under 35 U.S.C. § 112. Claim 1 was rejected because it recited "said second data request" without sufficient antecedent basis. We amend this portion of claim 1 to recite "said second data query," which has sufficient

antecedent basis. As the Examiner viewed this portion of claim 1 as the "second data query," this amendment requires no further searching.

Claim 18 was rejected because the words "stored on" do not positively state that a "computer readable medium" is the same as a "computer readable storage medium." We amend the preamble of claim 18 for style and to positively state that the claim refers to a "computer readable storage medium." These amendments do not add any additional subject matter necessitating a new search.

For all these reasons, we respectfully request withdrawal of these rejections regarding claims 1 and 18 and the claims depending therefrom.

CLAIM REJECTIONS – 35 U.S.C. § 103

The Examiner rejected claims 1-23 under 35 U.S.C. § 103(a) for obviousness. The Examiner rejected claims 1-3, 7-9, 13, 14, 20, 21, and 23 as being unpatentable over Broadhurst (U.S. Patent No. 6,560,634 B1) in view of Li (U.S. Patent Application No. 2002/0,059,161 A1). We respectfully disagree.

Independent claims 1, 17, and 18, as described above, are amended to overcome the §§ 101 and 112 rejections and/or to correct typographical errors. Claims 1, 17, and 18 are also amended for clarity in light of the Examiner Interview.

With respect to claim 1, the Examiner relies on Broadhurst as the primary reference. Broadhurst is directed toward a method for searching multiple DNS servers to determine the availability of a single domain name across multiple DNS servers around the world. Broadhurst describes a "query server that overcomes the shortcomings of existing domain name searching techniques by performing a multitude of searches simultaneously, transparent to the user." (Broadhurst, Abstract) "[T]he improved query server searches for existing domain name records in various domains and then displays the results in a formatted manner, thus eliminating the need

for a user to perform individual searches." (Broadhurst, Abstract) "For example, if client browser 106 selects 50 domains to query, search engine 226 may spawn 5 search sub-processes, so that each spawned search sub-process queries 10 DNS servers." (Broadhurst, Col. 5, Lines 59-62) "In response to the search request, the DNS server 108 searches its domain-name database for a DNS record associated with the specific domain name (step 148). The DNS server 108 generates a response that indicates whether a DNS record was found for that domain name." (Broadhurst, Col. 6, Lines 10-14) "If a response indicates that the domain-name database contains a DNS record associated with the domain name, query engine 222 flags that response signifying that the domain name has indeed been registered in the specific domain for further inquiry." (Broadhurst, Col. 6, Lines 18-22)

The Examiner admits, however, that Broadhurst fails to disclose "generating and performing a second data query derived from said one or more identifiers and from a second data request type of said one or more data request types." Further, the Examiner admits that Broadhurst fails to disclose "retrieving at least one second result from the at least one source in response to said second data query" and "wherein said second data query is automatically generated based on said first data query to select said at least one second result having content associated with, but not identified by, said first data query."

The Examiner relies on Li to disclose these elements missing from Broadhurst. We respectfully disagree with the Examiner's determination. As further described below, Li fails to disclose or suggest modifying Broadhurst to include all of these elements.

During the interview, the Examiner and Supervisor characterized Li with respect to the "second data request type" recited in claim 1. The Supervisor referred to Figure 2 of Li as illustrating two subsets of a query. For example, a user could search a group of documents and restrict the search to documents corresponding to a selected date range. We appreciate the Supervisor's guidance with respect to his characterization of Li's disclosure. However, Li, under

this interpretation, does not disclose "the second data request type" of claim 1, further discussed below.

Li is directed toward "a method and apparatus for efficient query expansion using reduced size indices and for progressive query processing." (Li, Abstract) Li discloses the use of "an indexing phase, a query processing and a ranking phase." (Id.) During indexing, "semantically similar words are grouped." (Id.) During query processing, the words in the query are "mapped into their corresponding semantic concepts." The initial query words are then "used to rank the documents in the answer set." (Id.)

Li, however, does not disclose "generating and performing a second data query derived from said one or more identifiers and from a second data request type of said one or more data request types." The Examiner refers only to "semantic identifiers" for this element, but these identifiers are not a second data query. The "second data query" recited in claim 1 is in addition to and separate from the first data query previously recited in the claim. Li does not disclose performing multiple queries. Rather, Li expands on the initial query terms and performs a single query. "Multi-granularity query expansion transforms the words car and dealer into the concepts Sem1 and Sem2." (Li, [0072]) "As a result, the query processing for the expanded query in accordance with the present invention is less expensive." (Li, [0079]) Li teaches away from performing multiple queries due to the desire to have a less expensive and efficient query process. Rather than perform a query of the initial terms, Li uses the initial query terms for ranking the results of the single query. The "initial matching keywords are retrieved for ranking." (Li, [0089]) Li does disclose "query processing . . . performed progressively by class." (Li, [0102]) However, this is not performed using multiple queries. Rather, the progressive nature of Li's query processing is directed toward the number of results to produce from the single query. "The result slots are further classified into classes." (Li, [0101]) "If the number of results in class 0 is less than 50, the query processor can produce the results in class 1." (Li, [0102]) The single expanded query produces a list of results that are categorized based

on relevance to the input terms, and less relevant results are produced until a predetermined number of results is reached.

Furthermore, Li does not disclose "a second data request type of said one or more data request types." The Examiner refers to "each entry of type" as recited in paragraph [0053] of Li. However, the "types" disclosed by Li refer to the types of entries created during the indexing phase. For the convenience of the Examiner, the context in which "each entry of type" appears is as follows:

> Let the words found in a dictionary be denoted as S (semantically meaningful) and all other words be denoted as P (proper names). Based on the above classification of dictionary and non-dictionary words, the co-occurrence relationship between words can be classified into three different categories:
>
> P-P form such as (Toyota, Avalon), . . .
> S-P or P-S forms such as (Buick, car), . . .
> S-S forms such as (car, garage), . . .
>
> Generally, it will be difficult to convert the entries of the form P-P . . . . All other entries, however, have an S word which can be replaced by its corresponding higher level semantic concept. This will result in a reduction in the size of co-occurrence index [sic] and will speed-up query processing.
>
> The reduction in index size occurs as follows. For each entry in S-P form, (W_1, X), such that w1 corresponds to a semantic concept Sem_1, replace all such (W_1, X) entries . . . by (Sem_1, X) . . . . The corresponding document lists are also merged. A similar procedure is followed for the entries in the P-S form. [E]ntries (Ford, car) and (Ford, auto) are replaced by (Ford, Sem_1). Similarly, entries (Ford, dealer) and (Ford, showroom) are replaced by (Ford, Sem_2). . . .
>
> Entries in S-S form can be merged in two ways:
>
> Simple merge: 1-to-many/many-to-1 types of merge . . . . For example, entries (car, dealer), (automobile, dealer), and (auto, dealer) are replaced by $(Sem_1, dealer)$. The algorithm used here is the same as that for S-P and P-S form.

> Complex merge: Many to many types of merge . . . . An example is to represent entries (car, dealer), (automobile, showroom), and (auto, SalesOffice) as (Sem_1, Sem_2). The algorithm for this type of merge is as follows:
>
>> 1. For each entry in S-S form, (W_1, X) such that W_1 corresponds to a semantic concept Sem_1, replace all such (W_1, X) entries . . . by (Sem_1, X) .
>>
>> . . .
>>
>> 2. ___For each entry of type___ (Sem_1, W_j) such that W_j corresponds to a semantic concept Sem_j, replace all such (Sem_1, W_j) by (Sem_1, Sem_j).
>
> Note that step 2 may be performed before step 1. Additionally, steps 1 and 2 of the algorithm may be iteratively performed until no further merges are possible.
>
> When multiple entries are merged, the respective syn_doc_list for each of the entries is also merged accordingly by a union operation.

(Li, [0043]-[0055], emphasis added)

The "entry of type" referenced by the Examiner is different from the "data request types" as recited in claim 1. Thus, Li does not disclose or suggest "generating and performing a second data query . . . from a second data request type." Rather, Li is directed to one and only one data request type: a search for terms within a group a documents.

As previously mentioned, the Supervisor characterized Li as disclosing a second data request type in that the search is capable, for example, of restricting the search to a selected range of dates. However, this is distinguishable from the "second data request type" recited in claim 1. Amended claim 1 recites "wherein said second data request type is of a type different from said first data request type."

Examples of data request types are found within the specification. For example, "[a] data request may include at least one identifier and at least one request type (e.g., identifier is a URI and request type is a resolution request, identifier is a keyword and request type is a search request, identifier is a domain name and request type is a registration request, etc.)." (Paragraph [0129] of the Published Application.) "Request types may include one of a prefix request, suffix request, command request, resolution request, redirection request, search request, identifier

registration request, commerce request, subscription request, navigation request, dialing request, messaging request, conferencing request, vendor request, service request, login request, status request, authorization request, and reference request." (Paragraph [0130] of the Published Application.) These types of requests are also described in dependent claim 6. Additionally, other data request types beyond these enumerated request types would also suffice.

Unlike the Supervisor's characterization of Li as a second request type being a subset of the first request having a limited range, the "second data request type" of claim 1 is "of a type different from said first data request type." A person having ordinary skill in the art would appreciate that the data request types recited in claim 1 as amended, read in light of the specification, refer to the exemplary types recited in the specification, and not to various subsets of a single request type. For example, the first data request type could be a search request, while the second request type could be any request type that is not a search request, such as a registration request. This example is merely illustrative for the convenience of the Examiner, as one can appreciate the various permutations available given the multiple possible request types.

The Examiner further relies on Li to disclose "retrieving at least one second result from the at least one source in response to said second data [query.]" The Examiner refers to paragraph [0054], Fig. 10, and paragraph [0102] of Li. However, paragraph [0054] refers to the semantic grouping conducted during the indexing phase. This is not a disclosure of retrieving a second result in response to a second data query. Figure 10 is an illustration of the query result classes described above. This too is not a disclosure of retrieving a second result in response to a second data query. Paragraph [0102], as previously discussed above, describes the method of presenting the results of the single query such that the most relevant results are presented first. None of these references in Li disclose or suggest retrieving a second result in response to a second data query.

Li also does not disclose or suggest "wherein said second data query is automatically generated based on said first data query to select said second result having content associated

with, but not identified by, said first data query." The Examiner relies again on paragraph [0102] for the disclosure of this element. As described above, this paragraph describes presenting the ranked results of the single data query based on relevance. This paragraph does not disclose or suggest a second query or a second result. It discloses a single list of results based on a single query. These results are, in fact, identified by the first, and only, data query performed in Li.

Based on the above, Broadhurst, as modified by Li, fails to disclose or suggest each and every element of the claim 1. Broadhurst is directed toward performing domain name searches across multiple domain name systems. Li is directed toward efficient query expansion by using coarse granularity concepts and semantic grouping. Broadhurst, as modified by Li per the Examiner's proposal, would merely expand the domain name search of Li based on coarse granularity and semantic grouping. This modified Broadhurst system would not generate "a second data query" having "a second data request type." It would perform an expanded query of one data request type based on semantic grouping.

The Examiner further states that it would have been obvious for a person of ordinary skill in the art at the time of the invention to readily recognize the advantage of modifying Broadhurst's system with the features of Li's system. We disagree. A person having skill in the art would not be motivated to modify Broadhurst with Li. Broadhurst is directed toward domain name searches across multiple domains for a single term. As illustrated in Fig. 6A of Broadhurst, "Mercedes" is the domain name of interest. Broadhurst searches for "Mercedes" domain names across multiple DNS. The user in Broadhurst is interested in the availability of a single base domain name in multiple countries. Thus, Broadhurst teaches away from expanding the terms of the query.

Li, on the other hand, is directed toward expanding a search query. Li does not disclose or suggest domain name registration. The concept of coarse granularity and semantic grouping is unrelated to registering a single base domain name across multiple DNS. A person having

skill in the art beginning with Li would not be lead to Broadhurst and would have no motivation to apply the teachings of Broadhurst to Li.

Furthermore, based on the Examiner and Supervisor's characterization of Li's disclosure, described above, it would simply not make sense to combine Broadhurst with Li to disclose each and every element of claim 1. As Broadhurst is directed to registering a single domain name across multiple domain name systems, there would be no motivation to perform multiple registration requests where the second request is a subset of the first request. Additionally, amended claim 1 recites that the "second data request type is of a type different from said first data request type." As described above, neither Broadhurst nor Li disclose this element.

Thus, based on the above, there is no motivation to combine Broadhurst and Li and, even if they were combined, they do not combine to disclose or suggest each and every element of claim 1.

Based on the above, we believe the cited art cannot sustain the rejection of claim 1. Claims 17 and 18 include elements similar to claim 1 and are, therefore, allowable over the cited art for the same reasons as claim 1. The remaining claims ultimately depend upon one of the independent claims shown allowable over the cited art above. While we believe that other arguments are available to highlight the allowable subject matter presented in various ones of these dependent claims, we also believe that the comments set forth herein are sufficiently compelling to warrant exclusion of such additional points for the sake of brevity and expedited consideration.

CONCLUSION

Based on the above, we believe that pending claims 1-23 are allowable. Therefore, we respectfully request allowance of all claims.

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       The Commissioner is hereby authorized to charge any additional fees which may be required in this application to Deposit Account No. 06-1135.

Respectfully submitted,

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